## NG I PERFORMA®O

## NGIKLTAHYA <br> $S \in R A M: K$

## N I PERFORMA20


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H•RIZON
interactive awards

NG|KLivAHYA

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$120 \times 120 \mathrm{~cm}$ Magnum series produced by Full Body and Double Charge technique was applied in Istanbul Airport which is the world's largest airport project.



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NG|KLTAHYA
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## NG I PERFORMA20

## WHY VG PERFORMA20?

## RESISTANT TO HIGH WEIGHT

The product has full resistance at high traffic areas.
(The product resists over $1,300 \mathrm{~kg} / \mathrm{cm} 2$. .)

## RESISTANT TO COMBUSTION

The product demonstrates no expansion and discoloration.

RESISTANT TO FREEZEING
Deformations due to freezing and mass losses are not encountered.

NOT EFFECTED FROM WEATHER CONDITIONS
The product is resistant to temperature differences in nature.

## EASY CLEANING

The product is easily cleaned by water and washable by pressure water.

RESISTANT TO SALT
The product is resistant to salt, acids and alkalis.


## RESISTANT TO MOIST

water absorption is less than 0.05 .


ANTISLIP SURFACE
The product can be produced antislip depending to request. (R10, R11, R12 )

## QUICK AND EASY APPLICATION

Places are ready for use immediately subsequent to application.

## REUSABLE

The product is demountable, renewable and reusable

## SOUND AND HEAT INSULATION

The product contributes to sound and heat insulation.


## MOLD AND DEEP RESISTANT

The product is resistant to formation of mold and moss.

## LONG LASTING

The product has high abrasion resistance and is not subject to change over time.

## RESISTANT TO CHEMICALS

The product is not affected by chemicals.



## WHERE TO USE NG PERFORMA20?

## TERRACES, VERANDAS, BALCONIES

The product can be used at places, exposed to external factors constantly.

## PARKING LOTS, GARAGES, GARAGE ROADS

The product is the right choice in terms of strength and reliability thanks to its load resistance above the average.

## SWIMMING POOLS, FOUNTAINS

The product is suitable for usage in wet areas thanks to its antislip feature.

## PARKS, GARDENS, RECREATION AREAS

The product's application is fast and practical to green areas as much as recreational areas.

## FACTORIES, AIRPORTS, STATIONS

The product can be used safely in commercial and public areas where high durability is required for high pedestrian traffic.

## HOLIDAY CENTERS, BEACHES, COASTS

The product is suitable for all soft surfaces. The product can be applied easily to sandy and stony beaches by dry application technique




## NGI PERFORMA20



NG Performa20 demonstrates extraordinary performance under hardest conditions thanks to its high fracture strength. Color body, which is a series consisting of glazed porcelain tile group of products, can be utilized safely in interior and exterior places




## DRY APPLICATION ON GRASS

Pedestrian paths in green spaces can be formed easily and quickly thanks to NG Performa20. The product is practical, economic and environmentally friendly inasmuch as adhesive, joint and laying work is not required during the dry application thereof.


## PREPARATION

The tile pattern to be applied on grass is decided. The area is excavated through virtue of a shovel according to the size of tiles. The ground is made ready by digging at a depth of about 5-6 cm.

## STABILIZER LAYER

Pebbles are fixed in order to adjust height by pouring them into the pit with the help of gauge. Preparation of at least a 3 cm -thickness pebble layer is recommended below the application area.

## APPLYING TILES

Tiles are applied approximately 1 cm under the grass level.

Rubber mallet is utilized in order to align the lawns with the tiles.



## DRY APPLICATION ON PEBBLE

NG Performa20 is a practical and a versatile solution in both residential and public areas The application on pebbles ensures drainage of rainwater in a correct way.


## PREPARING THE AREA

A pebble mixture which has different particle sizes ( $16-35 \mathrm{~mm}$ ) is poured into the application area. A pebble layer in 10-20 cm thickness is formed.

## SURFACE LEVELING

Minimum of $2 \%$ slope in the flow direction of water should be given to the application area.

3 PLACING TILES
The pebble layer is leveled by virtue of a floating rule. Standard gaps are provided when tiles are applied and surface flatness is checked every 5 meters for ideal application.

## FINISHING

The gaps between the tiles are filled by fine sand or pebble and the tiles are fully placed on the ground by virtue of a rubber mallet.




## DRY APPLICATION ON SAND

Pedestrian paths or seating areas are formed on the beaches and coasts by virtue NG Performa20. It is recommended using tiles in light colors in order to prevent overheating of the surface in applications made on sand.


1 PREPARATION
There should be at least 5-10 cm thickness sand layer in the application area.

2 STABILIZER LAYER
The surface is leveled by virtue of a floating rule before the tiles are applied.

3 PLACING TILES
Application is made subsequent to determination of appropriate gaps between the tiles.

4 FINISHING
The gaps between the tiles can be filled again by sand or used without the application of filling.




## APPLICATION OF RAISED GROUND

NG Performa20 provides numerous advantages when applied with ground elevating apparatus to be placed at the corners and center. Ground roughness and collapse issues are solved in a practical way thanks to this application method.


## 1 PREPARATION OF THE AREA

Tiles are applied on concrete screed or on ceramic floor without leveling through utilization of suitable height apparatus.

2 CONTROL OF TILES
20 mm tiles are manufactured in arectified and their size tolerances are $\pm 0.5 \mathrm{~mm}$.

3 APPLICATION
It is recommended for high traffic areas to place an apparatus in the middle part of the tile in addition to the apparatus placed on the tile corners. Installations (water, electricity, lighting, etc.) can be easily placed thanks to ground elevating apparatus.

4 LEVEL
Adjustable tools ensure laying evenly in cases when the ground is not smooth. The tiles can be easily changed in the event of a failure subsequent to completion of the application.




## APPLICATION WITH MORTAR

NG Performa20 is applied by usual technique in high traffic areas. Thanks to its durable structure, it is the perfect solution for public areas and industrial facilities.


## PREPARATION OF ADHESIVE MORTAR

Adhesive mortar is made ready prior to placing the tiles. Cement based, high performance and super flexible bonding mortars have to be utilized.

## APPLICATION OF ADHESIVE MORTAR TO THE GROUND

Application should be made by applying the adhesive on both to the surface and back of the tile. It should be let to dry for at least 24 hours after apply the adhesive mortar and then the joint application should be proceeded.

3 JOINT APPLICATION
It is recommended to leave a joint gap of at least 5 mm . the joint gap must be at least 1 cm in soft grounds. Usage of KYK Megafuge Flex joint is recommended in high traffic areas.

4 THE LAST STEP
The joints must be removed before it dries. Recommended chemichals for cleaning should be utilized and the surface should be rinsed by plenty of water.


## VISTA GREY



## NGIKLTAWNA

ASPEN


55014250R
Aspen Anthracite 20 mm R10 Rectified CB $60 \times 60 \mathrm{~cm}$


55014249R
Aspen Brown 20 mm R10 Rectified CB $60 \times 60 \mathrm{~cm}$


55014248R
Aspen Beige 20 mm R10 Rectified $60 \times 60 \mathrm{~cm}$


55014533R
Vista Grey 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$


55014531R
London Grey 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$

LEONARDO


55014325R
Leonardo Anthracite 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$


55014530R
Leonardo Grey 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$

## SILVER STONE



55014532R
Silver Stone 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$


55014534R
Terra Stone Grey 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$


55014535R
Terra Stone Mocha 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$

MONTANA


55014333R
Montana 20 mm R11 Rectified CB $60 \times 60 \mathrm{~cm}$

## TECHNICAL DETAILS

## SYMBOLS

## Glazed Porcelain CB Color Body

| PEI | Suitable for walls, bedroom and bathroom floors. |
| :---: | :---: |
| 1 |  |


| PEI |
| :---: |
| 2 |

Suitable for light traffic environments like the floors of house.
PEI
3 Suitable for heavy traffic area like entrances.

| PEI | Suitable for heavy traffic environments like restaurants, shopping stores |
| :---: | :--- |
| 4 |  |

PEI
5 Suitable for heavy traffic indoor and outdoor environments.

| V1 | V2 | V3 | V4 |
| :---: | :---: | :---: | :---: |
| H | $\square$ | $\square$ | $\square$ |

## UNIFORM APPEARANCE

Differences among pieces from the same production run are minimal.

## SLIGHT VARIATION

Clearly distinguishable differences in texture and/or pattern with similar colors.
MODERATE VARIATION
While the colors present on a single piece of tile will be indicative of the colors to be expected on the other tiles, the amount of colors on each piece will vary significantly.

## SUBSTANTIAL VARIATION

Random color differences from tile to tile, so that one tile may have totally different colors from that on other tiles. Thus, the final installation will be unique.


Values mentioned are determined according to DIN 51130 ceramic tiles slip resistance (ramp) test.

| PACKAGING | BOX |  | PALLET |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Size | Body | Box Pieces | Box M ${ }^{2}$ | Boxes in Pallet | Pallet M ${ }^{2}$ |
| $60 \times 60 \mathrm{~cm} / 24 \times 24 "$ Rectified | Glallet Dimensions |  |  |  |  |

## GLAZED PORCELAIN GROUP Bla (EK G)

| NORMS | TECHNICAL CHARACTERISTICS |  | REQUIRED VALUES | NG KUTAHYA CERAMIC glazed pruduct declared values |
| :---: | :---: | :---: | :---: | :---: |
| EN ISO 10545-2 | DIMENSIONS AND SURFACEQUALITY | LENGTH AND WIDTH | \% +/-0,6 (+/- 2,0 mm ) | \% +/- 0,40 |
|  |  | THICKNESS | \% +/- 5 (+/-0,5 mm ) | \% +/-5 (+/-0,5 mm) |
|  |  | STRAIGHTNESS OF SIDES | \% +/- 0,5 (+/-1,5 mm ) | \% +/- 0,30 |
|  |  | RECTANGULARITY | \% +/-0,5 (+/- 2,0 mm ) | \% +/- 0,30 |
|  |  | CENTRE - EDGE CURVATURE-WARPAGE | \% +/- 0,5 (+/- 2,0 mm ) | $\%+0,20 /-0,10$ |
|  |  | SURFACE QUALITY | 95\% | 95\% |
| EN ISO 10545-3 | WATER ABSORPTION \% |  | $\begin{aligned} & \quad \leq \% 0,10 \\ & \text { Individual Max. 0,6\% } \end{aligned}$ | $\leq \% 0,10$ |
| EN ISO 10545-4 | BREAKING STRENGTH (N) | A: THICKNESS $\geq 7,50 \mathrm{~mm}$ <br> B: THICKNESS $<7,50 \mathrm{~mm}$ | A:MIN 1300 N B:MIN 700 N | A:MIN 10000 N |
|  | MODULUS OF RUPTURE ( $\mathrm{N} / \mathrm{mm}^{2}$ ) |  | MIN: $35 \mathrm{~N} / \mathrm{mm}^{2}$ | MIN: $60 \mathrm{~N} / \mathrm{mm}^{2}$ |
| EN ISO 10545-5 | IMPACT RESISTANCE AS, COEFFICIENT OF RESTITUTION (COR) |  | (DECLARED VALUE) | REQUIRED |
| EN ISO 10545-7 | ABRASION RESISTANCE |  | ABRASION CLASS AND CYCLES PASSED | ABRASION CLASS AND CYCLES PASSED (2-5 CLASS) |
| EN ISO 10545-8 | LINEAR THERMAL EXPANSION |  | DECLARED VALUE | $6,00 \times 10^{-6} / 7,50 \times 10^{-6}$ |
| EN ISO 10545-9 | THERMAL SHOCK RESISTANCE |  | REQUIRED | REQUIRED |
| EN ISO 10545-10 | MOISTURE EXPANSION |  | DECLARED VALUE | 0,01\% |
| EN ISO 10545-11 | CRAZING RESISTANCE |  | REQUIRED | REQUIRED |
| EN ISO 10545-12 | FROST RESISTANCE |  | REQUIRED | REQUIRED |
| EN ISO 10545-13 | RESISTANCE TO LOW CONCENTRATIONS OF ACIDS AND ALKALIS |  | DECLARED VALUE | LA /LB (REQUIRED) |
|  | RESISTANCE TO HIGH CONCENTRATIONS OF ACIDS AND ALKALIS |  | DECLARED VALUE | HA/HB (REQUIRED ) |
|  | RESISTANCE TO HAUSEHOLD CHEMICALS AND SWIMMING POOL SALTS |  | MIN:B | A/B (REQUIRED ) |
| EN ISO 10545-14 | RESISTANCE TO STAINING |  | MIN CLASS 3 | MIN: 3 CLASS 3 |
| EN ISO 10545-15 | RELEASE OF DANDEROUS SUBSTANCES LEAD - CADMIUM |  | DECLARED VALUE | $\begin{aligned} & \mathrm{Pb}:<0,1 \\ & \mathrm{Cd}:<0,01 \end{aligned}$ |
| DIN 51130-51097 CEN/TS 16165 | SLIPPERINESS |  | DECLARED VALUE | R. 9 - R. 10 - R. 11 -R. 12 SINIF / CLASS:A-B-C |
| EN 12004:2007+A1:2012,4,1 | BOND STRENGTH /ADHESION | CEMENTITIOUS ADHESIVES | DECLARED VALUE | $\geq 0,5$ Tip C2 |
| EN 12004:2007+A1:2012,4,2 |  | DISPERSION ADHESIVES | DECLARED VALUE |  |
| EN 12004:2007+A1:2012,4,3 |  | REACTION RESIN ADHESIVES | DECLARED VALUE |  |
|  |  | MORTAR | DECLARED VALUE |  |
| -- | REACTION TO FIRE |  | A 1 or $\mathrm{A} 1 \mathrm{FL}^{\text {L }}$ | A 1 or $\mathrm{Al}^{\mathrm{FL}}$ |
| CEN/TS15209 | TACTILITY |  | DECLARE SURFACE DESCRIPTION | DECLARE SURFACE DESCRIPTION |

QUALITY STANDARDS
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